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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/753,437	01/03/2001	Subodh K. Raniwala	40002-10217	3542

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EXAMINER
CHORBAJI, MONZER R

ART UNIT	PAPER NUMBER
1744	

DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/753,437	Applicant(s) SUBDOH K. RANIWALA
	Examiner MONZER R CHORBAJI	Art Unit 1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

This Non-final office Action is in response to the RCE/Amendment received on 06/30/03

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-2, 5-8, 10-17, 20-22, and 24-28 are rejected under 35 U.S.C.103 (a) as being unpatentable over Richter et al (U.S.P.N. 6,326,032) in view of Carlson (U.S.P.N. 5,368,828) and further in view of Totten (U.S.P.N. 4,635,662).

With respect to claims 1 and 16, Richter discloses a bottle sterilizing system (figure and col.4, lines 46-61) and a method (columns 9-10) for sterilizing bottles (col.4, lines 46-61) using a solution including hydrogen peroxide (col.3, lines 12-13) source (104) by contacting the interior and the exterior surfaces of the bottles (col.10, lines 49-51). The bottles mentioned in Richter include the inherent features of having an interior and exterior surface, a body and an

opening such that the opening has a width smaller than the width of the body portion. Also, Richter teaches of removing the sterilant (col.4, lines 39-42) from all the surfaces of the bottles using a rinsing device, after maintaining such a contact for a specified period of time (col.11, lines 20-21). In addition, Richter system involves inverting the bottles in order to drain fluid (col.10, lines 54-56). Richter fails to disclose atomizing the sterilant and means for introducing a sterilant onto the interior surface of inverted bottle from a location exterior to the opening of the bottle. Carlson discloses an exterior source of sterilizing agent (figure 1, 14) of atomizing the hydrogen peroxide such that a uniform coating of the sterilant (thin liquid film) on the interior side walls and bottom of the carton (col.3, lines 8-20). However, Carlson fails to disclose introducing a sterilant onto the interior surface of inverted bottle from a location exterior to the opening of the bottle. Totten discloses a plurality of inverted bottles (figure 1, 22 and 32) such that a liquid is introduced onto the interior surface of inverted bottle (figure 10, 190 and 204) from a location exterior to the opening of the bottle (col.8, lines 45-62). Thus, one having ordinary skill in the art would have been motivated to modify Richter's method and apparatus to include a bottle inversion step in order to flush the entire bottle of any foreign matter which inadvertently previously found its way into the bottle (Totten, col.1, lines 15-19).

With respect to claims 2 and 17, since Carlson's apparatus uses an atomizer that impinges and dissipates the particles upon the container surface, then it is intrinsic that such a contact results in substantially wetting the surface.

With respect to claims 5-6 and 20-21, Carlson's apparatus uses a hydraulic atomizer nozzle (col.3, lines 8-11) such that the liquid droplets are in the form of a mist (col.3, line 10).

With respect to claims 7-8 and 22, Richter's method and apparatus result in contacting all the surfaces of a bottle (col.10, lines 49-51) such that the sterilant is introduced in a closed chamber (102).

With respect to claims 10-11 and 24, Richter's method and apparatus include the following: heating the sterilant to a temperature between 60 degree Fahrenheit and 180 degree Fahrenheit (col.2, lines 25-26), the sterilizing agent includes hydrogen peroxide and peracetic acid (col.3, line 45), and the sterilant is an aqueous solution (col.3, line 45), which includes about 27.5% hydrogen peroxide (col.3, lines 12-13) and about 5.8% peracetic acid (col.3, lines 16-17).

With respect to claims12 and 27, even though Richter's method and apparatus does not disclose the inversion of the bottles, however, such a step is intrinsic in order to remove the sterilizing agent from inside the bottles. Inverting the bottles before or after introduction of the sterilant is well within the scope of the one having ordinary skill in the art of designing plants for sterilizing bottles.

With respect to claims 13, 15, 25, and 28, Richter's method and apparatus include the following: the sterilizing agent is removed from the bottle surface by rinsing the bottle with water (unlabeled nozzles in 103), and the system is operated in a cold-fill liquid product filling operation (col.2, lines 51-53).

With respect to claims 14 and 26, Carlson's method and apparatus include removing the sterilant from the container surface with compressed air (col.1, lines 66-68).

4. Claims 3-4, 9, 18-19, and 23 are rejected under 35 U.S.C.103 (a) as being unpatentable over Richter et al (U.S.P.N. 6,326,032) in view of Carlson (U.S.P.N. 5,368,828) and further in view of Totten (U.S.P.N. 4,635,662) and Spisak et al (U.S.P.N. 4,566,251).

With respect to claims 3-4, 9, 18-19, and 23, Richter, Carlson, and Totten fail to teach the following: promoting condensation of particles onto the bottle surface, introducing the sterilant in a supersaturated fog, and the chamber is adapted for increased temperature and pressure. However, Spisak teaches that it is known in the art to introduce hydrogen peroxide in the form of fog (col.1, lines 20-21). In addition, Spisak discloses of introducing the sterilant in a way to promote condensation on all surfaces of the carton (col.1, lines 60-64 and col.5, lines 11-28). Since condensation occurs in Spisak's chamber (60a) then such a chamber intrinsically is adapted for increased temperature and pressure. Thus, one skilled in the art would have been motivated to modify Richter's method and apparatus to include introducing the sterilant in a supersaturated fog in order to cause the vapor to condense on all surfaces of the container (Spisak et al, col.1, lines 61-62).

5. Claims 29-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richter et al (U.S.P.N. 6,326,032) in view of Carlson (U.S.P.N. 5,368,828) and further in view of Spisak et al (U.S.P.N. 4,566,251).

With respect to claim 29, the teachings of Richter and Carlson have been addressed above in regard to claims 1 and 16. Richter system involves inverting the bottles in order to drain fluid (col.10, lines 54-56) but fails to disclose a nozzle disposed under and exterior to the opening of a bottle. Carlson fails to teach inverting bottles and disposing a nozzle under and exterior to the opening of a bottle. However, Spisak discloses the concept of inverting (col.1, lines 61-63) open top containers, i.e., bottle (col.3, lines 5-6) on conveyor such that the open top containers are inverted in chain (figure 3, 72) to drain the sterilant (col.5, lines 20-26). While draining the sterilant, the exterior nozzle (figure 3, 114) is disposed under the open top containers One having ordinary skill in the art would have been motivated to modify Richter's method and apparatus to include inverting the bottles in order to insure all the condensate has been drained (Spisak, col.1, lines 63-65).

With regard to claims 31-32, and 37, Spisak teaches that it is known in the art to introduce hydrogen peroxide in the form of fog (col.1, lines 20-21). In addition, Spisak discloses of introducing the sterilant in a way to promote condensation on all surfaces of the carton (col.1, lines 60-64 and col.5, lines 11-28). Since condensation occurs in Spisak's chamber (60a) then such a chamber intrinsically is adapted for increased temperature and pressure.

With respect to claim 30 see claims 2 and 17 as previously addressed above.

With respect to claims 33-34 see claims 5-6 and 20-21 as previously addressed above.

With respect to claims 35-36 see claims 7-8 and 22 as previously addressed above.

With respect to claims 38-39 see claims 10-11 and 24 as previously addressed above.

With respect to claim 40 see claims 12 and 27 as previously addressed above.

Response to Arguments

6. On page 5 of the response, applicant argues, "None of the references, either alone or in combination, teach or suggest the claimed invention wherein an atomized sterilizing agent is introduced from an exterior location into an inverted bottle". Richter teaches spraying the interior and exterior surfaces of bottles using a sterilant along with inverting bottles in order to drain fluids. The limitations of a bottle are inherent features of the bottles sterilized in Richter. Carlson introduces an atomized sterilizing agent onto the surface of a carton. The Totten reference is combined to show that the concept of introducing fluid from and exterior location into an inverted bottle (figure 1, 22 and 32). In addition, the Spisak reference teaches the concept of inverting containers with opening (i.e., bottles) as well.

On page 6 of the response, applicant argues, "as the Carlson apparatus sprays sterilant into the interior of an upright container. Moreover, the Carlson container openings are as wide as the container body enabling line of sight direct impingement of the sterilizing agent and the insertion of drying mandrels into the container interior". The Carlson reference is used only for the concept of

atomizing the sterilant in order to form a thin liquid film. The limitations with regard to the structure of a bottle are found in the Richter et al reference.

On page 6 of the response, applicant argues, "as the Spisak container openings are as wide as the container body allowing for insertion of mandrels into the container interior". The Spisak reference teaches inverting (col.1, lines 61-63) open top containers, i.e., bottle (col.3, lines 5-6) on a conveyor system. Furthermore, the Spisak reference still teaches the limitations of the newly amended claim 29.

Conclusion

7. The prior art made of reference but not relied upon is considered pertinent to applicant's disclosure. Brenner (U.S.P.N. 3,559,563), Schroeder et al (U.S.P.N. 6,328,928), and Kronseder (U.S.P.N. 5,598,859) disclose treating inverted bottles.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R CHORBAJI whose telephone number is (703) 305-3605. The examiner can normally be reached on M-F 8:30-5:00.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT J WARDEN can be reached on (703) 308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Monzer R. Chorbaji MRC
Patent Examiner
AU 1744
July 28, 2003

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